



**Volunteer Firefighters'
Length of Service Award System**

**Actuarial Valuation
for Plan Year Ending June 30, 2005**

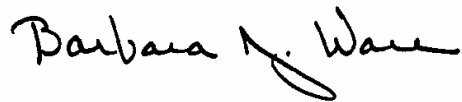
**Establishing Required Contributions
for the Fiscal Year
July 1, 2006 through June 30, 2007**

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ACTUARIAL CERTIFICATION

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose fully and fairly the funded condition of the Volunteer Firefighters' Length of Service Award System (VFLSAS). Based on the participant data provided by the Manager of the Volunteer Firefighters' System, the statement of assets and information on expenses provided by the CalPERS Fiscal Services Division, and the provisions of the system as outlined in Exhibit 7, it is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles and that the assumptions and methods are reasonable for this plan.



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EXECUTIVE SUMMARY

Purpose of the Report

This actuarial valuation as of June 30, 2005 has been prepared by CalPERS' staff actuaries for the Volunteer Firefighters' Length of Service Award System under the authority of the Volunteer Firefighters' Length of Service Award Act, Article 2, Section 50954, which provides for an annual actuarial valuation of the system.

The purpose of this report is to transmit to the Volunteer Firefighters' System, the Legislature, and the Board of Administration of CalPERS

- the findings and results of the actuarial valuation for the plan year ending June 30, 2005, and
- the actuarially required contributions for the fiscal year July 1, 2006 through June 30, 2007.

Contribution Requirements

The actuarially required contribution, both in total dollars and as a cost per active member, for the fiscal year July 1, 2006 through June 30, 2007, payable at the end of the fiscal year, is shown below:

	<u>Total Dollars</u>	<u>Cost per Active Member</u>
Normal Cost – Benefits ¹	\$ 119,753	\$ 152.94
Payment on the Unfunded Liability	40,488	51.71
Normal Cost – Administrative Expenses ²	<u>106,242</u>	<u>135.69</u>
Total	\$ 266,483	\$ 340.34
Contribution for New Agencies ³		\$ 288.63

The cost of the program decreased from \$310,480 for fiscal year 2005/2006 to \$266,483 for fiscal year 2006/2007. The cost per active member increased from \$320.41 for the prior fiscal year to \$340.34 for fiscal year 2006/2007. The increase in the cost per active member is due to the decrease in the number of active participants from 969 to 783. The contribution requirements are set in two parts, the cost of the benefits and the cost of the administrative expenses as shown above.

1 Increased with 7.5% interest to end of year.

2 Increased with 3% inflation to end of year.

3 Excludes Payment on the Unfunded Liability

Changes Since the Prior Valuation

None

Supplemental Benefit Award

Section 50965(b) of the Government Code provides for a supplemental award amount, not to exceed \$50, which may be added to the regular award, based on an actuarial analysis of the condition of the fund. The amount is to be "reviewed annually by the Board to ensure that it remains consistent with the maintenance of adequate actuarial reserves." The Board has established a policy that a supplemental benefit of 50% of the basic benefit will be paid to the current retirees if the assets of the plan exceed the actuarial accrued liability, including the present value of the supplemental benefits, if any, for the current year and also for the year for which the actuary will determine whether or not the supplemental payment should be made. For this valuation, the assets do not exceed the accrued liability. Therefore, in accordance with the Board policy, a supplemental amount shall not be payable for the 2006/2007 plan year.

SUMMARY OF RESULTS

Comparison of Current and Prior Years

	<u>June 30, 2004</u>	<u>June 30, 2005</u>
Participant Information		
Actives (service during past year)	969	783
Inactives (no service during past year)	2,686	2990
Award Recipients	<u>99</u>	<u>115</u>
Total	3,754	3,888
Normal Cost on Valuation Date		
Cost for Awards	\$ 113,570	\$ 104,302
Death Benefit	8,535	7,096
Load for Administrative Costs	<u>125,338</u>	<u>103,148</u>
Total	\$ 247,443	\$ 214,546
Actuarial Liability		
Retiree Liability		
Regular Awards	\$ 660,797	\$ 802,817
Supplemental Awards	0	0
Death Benefit	<u>104,237</u>	<u>117,181</u>
Total Retiree Liability	\$ 765,034	\$ 919,998
Active Liability		
Prior Service	\$ 781,676	\$ 828,815
Supplemental Awards	0	0
Current Service	1,695,721	1,625,045
Death Benefit	<u>282,834</u>	<u>277,447</u>
Total Active Liability	<u>2,760,231</u>	<u>2,731,307</u>
Total Actuarial Liability	3,525,265	3,651,305
Actuarial Value of Assets	<u>2,974,642</u>	<u>3,211,817</u>
Unfunded Liability/(Excess Assets)	\$ 550,623	\$ 439,488
Funded Ratio	84%	88%
Total Contribution (if paid end of year on June 30)		
Normal Cost – Benefits ¹	\$ 131,263	\$ 119,753
Payment on the Unfunded Liability	50,119	40,488
Normal Cost – Administrative Expenses ²	<u>129,098</u>	<u>106,242</u>
Total	\$ 310,480	\$ 266,483
Contribution per Active Member (if paid June 30)		
Normal Cost – Benefits ¹	\$ 135.46	\$ 152.94
Payment on the Unfunded Liability	51.72	51.71
Normal Cost – Administrative Expenses ²	<u>133.23</u>	<u>135.69</u>
Total	\$ 320.41	\$ 340.34
Contribution per Active Member for New Agencies (if paid June 30) ³	\$ 268.69	\$ 288.63

1 Increased with 7.5% interest to end of year.

2 Increased with 3% inflation to end of year.

3 Excludes Payment on the Unfunded Liability.

Purchase of Prior Service

Fire entities that purchase prior years of service for their members may pay for the service in installments over a period of not more than ten years. The present value of prior service payments owed to the fund by nine entities is a total of approximately \$43,500 as of June 30, 2005. During the 2004/05 year, approximately \$30,500 in installment payments were made. These amounts will continue to be paid by the fire entity and are excluded from the determination of the pooled costs.

GAIN/(LOSS) ANALYSIS FOR THE PERIOD JULY 1, 2004 THROUGH JUNE 30, 2005

A. Total Gain/Loss

1. Unfunded Actuarial Liability, 6/30/04	\$ 550,623
2. Normal Cost, 6/30/04 (excluding administrative costs)	131,263
3. Normal Cost for Expenses, FY04-05	129,098
4. Contributions, including expenses, FY04-05	211,043
5. Interest [((A.1.)+(A.2.)) * .075]	<u>51,141</u>
6. Expected Unfunded Actuarial Liability, 6/30/05 [(A.1.)+(A.2.)+(A.3.)-(A.4.)+(A.5.)]	\$ 651,082
7. Change in Unfunded Liability Due to Changes in Methods/Assumptions	<u>0</u>
8. Expected Unfunded Actuarial Liability after Change [(A.6.)+(A.7.)]	\$ 651,082
9. Actual Unfunded Actuarial Liability, 6/30/05	<u>439,488</u>
10. (Gain)/Loss [(A.9.)-(A.8.)]	\$ (211,594)

B. Asset Gain/Loss

1. Actuarial Value of Assets, 6/30/04	\$ 2,974,642
2. Contributions, including expenses, FY04-05	211,043
3. Benefits Paid, FY04-05	82,265
4. Expenses Paid, FY04-05	100,144
5. Interest [(B.1.) * .075 - (B.3.) * ((1.075) ^{1/2} - 1)]	<u>220,069</u>
6. Expected Actuarial Value of Assets, 6/30/05 [(B.1.)+(B.2.)-(B.3.)-(B.4.)+(B.5.)]	\$ 3,223,345
7. Change in Assets Due to Change in Method	<u>0</u>
8. Expected Actuarial Value of Assets after Change [(B.6.)+(B.7.)]	3,223,345
9. Actual Actuarial Value of Assets, 6/30/05	<u>3,211,817</u>
10. Asset (Gain)/Loss [(B.8.)-(B.9.)]	\$ 11,528

C. (Gain)/Loss for Expenses [(B.4.)-(A.3.)] \$ (28,954)

D. Liability (Gain)/Loss [(A.10.)-(B.10.)-(C.)] \$ (194,168)

SCHEDULE OF AMORTIZATION BASES

The schedule below shows the development of the "Payment on the Unfunded Liability" shown in the Contribution Requirements and the Summary of Results sections of this report. Each row of the schedule gives a brief description of a base (or portion of the Unfunded Liability), the date the base was established, the original amount, and the number of years from June 30, 2006 to the final payment (Amortization Period). The balance of the base is then shown for the year immediately following the valuation date and the expected payment and projected base for the next fiscal year. The last year shown is the one for which rates are established in this report. Please see Appendix A for more detail, particularly for an explanation of how amortization periods are determined.

				Amounts for Fiscal 2006/2007		
Reason for Base	Date Established	Remaining Amorti- zation Period	Balance 6/30/05	Expected Payment 2005/2006	Balance 6/30/06	Scheduled Payment 2006/2007
Original Unfunded Liability	06/30/04	29	\$545,298	\$50,119	\$586,195	\$50,119
(Gain)/Loss	06/30/05	30	(\$211,594)	\$0	(\$227,464)	(\$19,260)
Payment (Gain)/Loss	06/30/05	30	\$105,784	\$0	\$113,718	\$9,629
TOTAL			\$439,488	\$50,199	\$472,449	\$40,488

SUPPORTING EXHIBITS

- | | |
|------------------|--|
| Exhibit 1 | Summary of Assets |
| Exhibit 2 | Change in Assets During the Year |
| Exhibit 3 | Development of the Actuarial Value of Assets |
| Exhibit 4 | Summary of Participant Data |
| Exhibit 5 | Age and Service of All Active and Inactive Participants |
| Exhibit 6 | Statement of Actuarial Assumptions and Methods |
| Exhibit 7 | Description of the Volunteer Firefighters' Award System |

Exhibit 1
Summary of Assets as of June 30, 2005

Investments at Market Value	
General Cash	\$ 33,595
Short Term Investments	2,345,758
Bonds at Par	937,114
Common Stock	866,245
International Stock	504,184
Real Estate	287,799
Market Value Adjustment	<u>(998)</u>
Subtotal	\$ 4,973,697
Accounts Receivable	
Interest on Investments	\$ 220
Contributions	374,600
Due from Other Funds	<u>14,552</u>
Subtotal	\$ 389,372
Accounts Payable	(2,312,650)
Market Value of Funds	\$ 3,050,419

Exhibit 2
Change in Assets During Year Ending June 30, 2005

Fund Balance on June 30, 2004 at Market Value	\$ 2,780,349
Additions:	
Dividend Income	\$ 11,899
Realized Gain	56,907
Unrealized Gain/Loss	172,023
Department Contributions	211,043
Interest Revenue	<u>606</u>
Subtotal	\$ 452,480
Deductions:	
Administrative Expense	\$ (100,144)
Service Awards Paid	<u>(82,265)</u>
Subtotal	\$ (182,409)
Fund Balance on June 30, 2005 at Market Value	\$ 3,050,419
Investment Return, before administrative expenses	8.7%

Exhibit 3

Development of the Actuarial Value of Assets for the Year Ending June 30, 2005

1. Actuarial Value of Assets as of June 30, 2004	\$ 2,974,642
2. Contributions Made	211,043
3. Service Awards Paid	82,265
4. Administrative Expenses	100,144
5. Expected Interest Earned $[(1) * .075 - (3) * (1.075^{1/2} - 1)]$	<u>220,069</u>
6. Expected Value of Assets $[(1) + (2) - (3) - (4) + (5)]$	\$ 3,223,345
7. Market Value of Assets as of June 30, 2005	<u>3,050,419</u>
8. Difference between Market and Expected Values $[(7) - (6)]$	\$ (172,926)
9. Adjustment to Expected value $[(8) / 15]$	\$ <u>(11,528)</u>
10. Initial Actuarial Value of Assets $[(6) + (9)]$	\$ 3,211,817
11. Upper Limit for Actuarial Value $[(7) * 1.2]$	\$ 3,660,503
12. Lower Limit for Actuarial Value $[(7) * .8]$	\$ 2,440,335
13. Final Actuarial Value of Assets as of June 30, 2005 $[(10), \text{ but no greater than } (11) \text{ and no less than } (12)]$	\$ 3,211,817

Exhibit 4

Summary of Participant Data

Active Participants

June 30, 2004

June 30, 2005

With a year of service during preceding year (active members)	969	783
Without a year of service during preceding year (inactive members)	<u>2,686</u>	<u>2,990</u>
Total	3,655	3,773
 Average Age	 40.28	 40.05
 Average Years of Service	 5.00	 5.03

Retired Participants

Total	99	115
Average Age	67.24	66.43
 Average Monthly Benefit	 \$ 62	 \$ 64
Average Additional Monthly Benefit	\$ 0	\$ 0

Exhibit 5

Age and Service of All Active Plan Participants as of June 30, 2005

Age	Years of Service								
	1	2	3	4	5-9	10-14	15-19	20+	Total
under 20	4								4
20-24	19	15	14	4	9				61
25-29	17	15	12	5	39	4			92
30-34	6	11	12	10	28	24			91
35-39	6	8	10	6	28	26	8		92
40-44	8	8	10	9	38	34	12	3	122
45-49	5	6	6	5	40	45	14	3	124
50-54	1	4	7	4	24	27	16	6	89
55-59	3	9	4		7	30	13	4	70
60-64		2	2		6	4	6	1	21
65 & Over	2	1	3		2	7	2		17
Total	71	79	80	43	221	201	71	17	783

Exhibit 5 (continued)

Age and Service of All Inactive Plan Participants as of June 30, 2005

Age	Years of Service								Total
	1	2	3	4	5-9	10-14	15-19	20+	
under 20									0
20-24	14	18	12	6					50
25-29	38	78	72	58	65				311
30-34	93	100	77	74	125	8			477
35-39	144	98	86	82	157	30	1		598
40-44	139	111	89	57	122	29	2	3	552
45-49	104	82	52	41	86	43	8	6	422
50-54	35	39	30	23	67	39	9	14	256
55-59	29	13	23	12	37	30	13	15	172
60-64	16	14	16	10	24	14	4	2	100
65 & Over	4	12	4	5	19	7		1	52
Total	616	565	461	368	702	200	37	41	2,990

Exhibit 6

Statement of Actuarial Assumptions and Methods

Actuarial Assumptions:

1. Investment Return: 7.50% per year
2. Inflation Rate 3% per year
3. Mortality: The 1994 Group Annuity Mortality Table, for males and females
4. Withdrawal: Rates vary by years of service as shown in the table below.

Years of Service	Rate of Withdrawal
1 through 5	.15
6 through 9	.05
10+	.00

Inactive members are assumed to remain inactive for all future years. This means that there is no liability for an inactive with less than 10 years of service.

5. Retirement: Members are assumed to retire at the earliest date they have at least 10 years of service and attain age 60.
6. Disablement: None assumed

Exhibit 6 (Continued)

Statement of Actuarial Assumptions and Methods (continued)

Actuarial Methodology:

1. General Cost Method: The actuarial funding method used is the Unit Credit cost method. Under this funding method, the Accrued Liability is the sum of the present values of accrued benefits of all participants. The Normal Cost is the present value of the benefits to be earned during the next valuation year by active participants. The cost under this method will increase for each individual as they get older. However, if the average attained age of the group remains relatively stable, the costs should also be relatively stable. The group is assumed to remain stable for purposes of projecting the Normal Cost to the year for which the contribution requirement is being determined. The expense portion of the Normal Cost is determined each year to be equal to actual expenses of the year prior to the valuation date plus assumed inflation (3.0%). Actuarial gains (and losses) occur if a member lives for a shorter (or longer) period of time than expected under the mortality assumption, or if a member works for a shorter (or longer) period of time than expected under the turnover assumption.
2. Death Benefit: The Accrued Liability is equal to the present value of the portion of the death benefit accrued. The Normal Cost is the present value of one-tenth of the death benefit (the amount accruing in the upcoming year) for anyone with less than 10 years of service.
3. Supplemental Benefits: For purposes of the supplemental benefit, the valuation is first performed including the supplemental benefit for the first year following the valuation date, if applicable as determined in the prior valuation, plus the supplemental benefit for the following year. This is done because the supplemental benefit is contingent upon the assets being greater than the actuarial liability on the valuation date. If the assets are less than the actuarial liability in the initial valuation, then the present value of supplemental benefits payable two years from the valuation date are excluded from the final costs.

Exhibit 6 (Continued)

Statement of Actuarial Assumptions and Methods (continued)

Actuarial Methodology (continued):

4. Asset Valuation Method: In order to dampen the effect of short term market value fluctuations on employer contribution requirements, the following asset smoothing technique is used. First an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus $1/15$ of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. This value must be within 20% of the actual Market Value.
5. Past Service Costs: The present value of payments to be made by certain fire entities for the purchase of past service costs is excluded from both the Actuarial Liability and the Actuarial Value of Assets in order to determine pooled costs. The districts with remaining payments will then pay their share of the pooled costs plus the past service payment applicable to their district.
6. Amortization period: The amortization period for the Actuarial Unfunded Liability established in the June 30, 2004 valuation was set at 30 years. This is a "fixed" amortization period and the amount established will be completely paid for on June 30, 2035. Any changes to the plan or changes to the actuarial assumptions or methods will be amortized over 20 years. The payment for Actuarial Gains and Losses is calculated over a rolling 30-year amortization period. That means that the Gain and/or Loss from each valuation is added to the sum of all previous Gains and/or Losses since June 30, 2004 and the new sum is amortized over 30 years. In this way, no individual year's Gain or Loss will ever be "paid off." However, the Actuarial Gain or Loss is the difference between what is expected based upon Actuarial Assumptions and what actually happened. Therefore, if the Actuarial Assumptions are appropriate for the plan, then Gains and Losses will tend to offset each other.

Exhibit 7

Description of the Volunteer Firefighters' Award System Background, Benefits and Provisions

The Volunteer Firefighters' Award System (VFLSAS) has been in existence since 1981, when it began with 2 fire entities and 5 members. As of the valuation date, the system has 63 fire entities and 3773 active and inactive members and 115 award recipients.

The Volunteer Firefighters' Length of Service Award Act was written with the intention of creating an incentive for the volunteer to respond to emergency calls and attend department training drills, as well as providing local communities with a means of rewarding long and faithful volunteer service. The program is viewed as a recruiting and retention tool for the fire entities. An award through the VFLSAS is not considered a retirement benefit, nor is the VFLSAS a retirement system; the service and awards under the VFLSAS are not to be construed as duplicating service or benefits in other public retirement systems.

To be eligible for benefits, a member must have attained age 60 and have at least 10 years of service. The years of service are not required to be consecutive. Due to the nature of the volunteer work, members may have frequent breaks in their service.

The monthly award is \$100 per month for the lifetime of the member, reduced proportionately for service of less than 20 years (e.g., the award is \$50 for 10 years of service, with an additional \$5 for every year of service up to a maximum of \$100 with 20 years of service). (Section 50965 (a))

A 1991 change in the law provides for a supplemental benefit award of up to \$50 per month, also reduced proportionately for service of less than 20 years. This supplemental benefit is payable subject to annual review by the Board based upon the actuarial analysis of the condition of the fund. (Section 50965 (b)) The 93/94 plan year was the first year this supplemental benefit was paid.

A 2001 change in the law added a \$3,000 death benefit. This benefit is payable to a beneficiary upon the death of an award recipient or a volunteer firefighter member (whether active, inactive or a benefit recipient) who has at least 10 years of service. (Section 50960 (c))

The fire entities may also choose to pay for up to 8 years of prior service credit for their members. The entities that buy prior service credit for their volunteers may choose to spread their payments over up to 10 years.

If a fire entity cancels its contract, any moneys it has contributed remain in the fund to help pay for benefits earned and expenses incurred.